UNITED STATES PATENT AND TRADEMARK OFFICE

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09/750,858	12/29/2000	Joseph M. Geigel	80677DMW	8939

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ART UNIT	PAPER NUMBER
2174	8

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 December 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>12,14,16,22,24 and 26</u> is/are allowed.

6)☒ Claim(s) <u>1-11,13,15,17-21,23,25 and 27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to Amendment A, filed 12/16/2003.

2. Claims 1-27 are pending in this application. Claims 1-8, 17, 18, and 27 are independent

claims. In the Amendment A, claims 9-16 and 19-26 are amended. This action is made non-final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9, 13, 15, 17-21, 23, 25, and 27 are rejected under 35 U.S.C. 102(e) as being

anticipated by Koba (US 6,222,947).

As per independent claim 1, Koba teaches a digital image album layout system

comprising:

a page creator module having a first genetic engine operable to execute genetic evolution

calculations on a first genetic population of image criteria, said page creator module having a

page evaluation module operable to test said first genetic population for fitness to album

preference criteria (col. 6, lines 43-59) and

an image placement module having a second genetic engine operable to execute genetic

evolution calculations on a second genetic population of page layout criteria, said image

placement module having a layout evaluation module operable to test said second genetic

population for fitness to page preference criteria (col. 7, lines 37-41).

As per independent claim 2, Koba teaches an automated album layout method responsive

to a set of inputs containing digital images, graphics, and other 2-dimensional objects,

comprising the steps of:

evaluating a grouping of the image objects for distribution into a number of album pages

according to a fitness function's parameters of a genetic engine (col. 6, lines 43-59);

assigning each image object to a page based on user preferences, including balance (col.

6, line 52 – col. 7, line 13);

displaying said page for user viewing, and refining the distribution based on further user

action (S210 of fig. 4 and fig. 5C and 5G).

As per independent claim 3, Koba teaches an automated layout and presentation method

responsive to a set of inputs containing digital images, graphics, and other two-dimensional

objects, comprising the steps of:

evaluating the `x' and `y' position coordinates, scale, and rotation of each of the input

images objects within a page according to fitness function parameters in a genetic engine (col. 7,

lines 37-41);

creating a page layout based on user preferences including rotation (col. 7, lines 37-41);

displaying said page layout for user viewing; refining said page layout based on further

user action (S210 of fig. 4 and fig. 5C and 5G), and formatting the page layout printing (col. 8,

lines 12-14).

As per independent claims 4, 5, and 6, they are rejected under the same rationale as claim

1.

As per independent claim 7, it is rejected under the same rationale as claim 4.

As per independent claim 8, Koba teaches a method of assigning a plurality of images,

having image parameters, to one or more pages in an album, comprising the steps of:

specifying an initial set of page assignments defining the album page assignment for each

of the plurality of images; initializing a genetic population by assigning said initial set of page

assignments to genes within an album genome structure (col. 6, lines 43-45); evolving said

genetic population in accordance with a genetic function to produce a present set of page

assignments within said album genome structure (col. 6, lines 45-54);

calculating a present set of page criteria according to said present set of page

assignments, the image parameters, and a set of album page parameters; testing said present set

of page criteria according to an album fitness function to determine an album score; repeating

said evolving and calculating steps if said album score fails to meet an album threshold value,

and outputting image page assignments according to said present page assignment if said album

score meets said album threshold value (col. 6, line 55 – col. 7, line 19).

As per claim 9, which is dependent on claim 8, Koba teaches the image parameters include an image event value, image chronology value, and image emphasis value (col. 6, lines 7-42).

As per claim 13, which is dependent on claim 8, Koba teaches calculation of said page criteria includes calculation of an emphasis value range, a page count value, and a balance threshold value (col. 6, line 55 – col. 7, line 19).

As per claim 15, which is dependent on claim 8, Koba teaches the page criteria includes balance, emphasis, chronology, and unity (col. 6, lines 7-42 and col. 6, line 55 – col. 7, line 19).

As per independent claim 17, it is rejected under the same rationale as claim 1.

As per independent claim 18, Koba teaches a method of arranging one, or more images, having image parameters, on an album page, comprising the steps of:

specifying an initial set of positioning parameters for each of the one or more images;

initializing a genetic population by assigning said initial set of positioning parameters as genes in a page genome structure; evolving said genetic population in accordance with a genetic function to produce a present set of positioning parameters within said page genome structure (col. 7, lines 20-36);

calculating a set of present layout criteria, according to said present set of positioning

parameters, the image parameters, and a set of page layout parameters; testing said present set of

layout criteria according to a page fitness function to determine a page score; repeating said

evolving and calculating steps if said page score fails to meet a page threshold value (col. 7, lines

37-47); and

outputting a page layout according to said present set of positioning parameters if said

page score meets said page threshold value (col. 8, lines 1-14).

As per claim 19, which is dependent on claim 18, Koba teaches the image parameters

include an image emphasis value (col. 7, lines 20-36).

As per claim 20, which is dependent on claim 18, Koba teaches the genome structure is

an array (the layouts of pictures as in fig. 5F, for example, are arrays).

As per claim 21, which is dependent on claim 18, this claim is rejected under the same

rationale as claim 20.

As per claim 23, which is dependent on claim 18, Koba teaches the layout criteria

includes calculation of image rotation (col. 6, lines 8-20 and col. 7, lines 37-41).

As per claim 25, which is dependent on claim 18, Koba teaches the page criteria include

white space range (col. 6, lines 8-20 and col. 7, lines 37-41).

As per independent claim 27, it is rejected under the same rationale as claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koba in

view of Wang (US 6,014,458).

As per claim 10, which is dependent on claim 8, Koba does not disclose the genome

structure is a tree structure. Wang discloses hierarchical tree structure for arranging images in

document pages in and fig. 8, lines 27-45. It would have been obvious to an artisan at the time of

the invention to use the teaching from Wang of the genome structure is a tree structure in Koba's

system since it would allow a user to easily arrange and organize images in pages.

As per claim 11, which is dependent on claim 8, it is rejected under the same rationale as

claim 10.

Allowable Subject Matter

7. Claims 12, 14, 16, 22, 24, and 26 are allowed.

Response to Arguments

8. Applicant's arguments with respect to claims 1-11, 13, 15, 17-21, 23, 25, and 27 have been considered but are moot in view of the new ground(s) of rejection.

Remarks

9. The term "genetic" means "of, relating to, or influenced by the origin or development of something". Therefore, the term "genetic", by itself, cannot be interpreted as "genetic programming" as the applicants claimed in the response.

Inquiries

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon (Gary) D Nguyen whose telephone number is 703-305-8318. The examiner can normally be reached on Monday - Friday from 8 AM to 5:30 PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nhon (Gary) Nguyen
March 16, 2004

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